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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-------------------------|-------------|----------------------|---------------------|------------------|
| 09/869,365 | 09/25/2001 | Mats Boman | GOTEP044 | 3983 |
| 21121 | 7590 | 03/08/2005 | EXAMINER | |
| OPPEDAHL AND LARSON LLP | | | GUHARAY, KARABI | |
| P O BOX 5068 | | | ART UNIT | |
| DILLON, CO 80435-5068 | | | PAPER NUMBER | |
| | | | 2879 | |

DATE MAILED: 03/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/869,365

Applicant(s)

BOMAN ET AL..

Examiner

Karabi Guharay

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18-36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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Applicant's Remark/Argument, filed on 12/03/04 has been considered and entered.

Applicant's arguments are found to be persuasive, so it overcomes the rejection of pending claims, filed on 06/03/2004.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 18-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haas (US 4407849) in view of Lemelson (US 5349265).

Regarding claims 18, 21, 26 & 28, Haas et al. disclose a gas discharge tube (sealed surge limiter, see Fig 1) comprising at least two electrodes (11 and 12) and at least one hollow insulator (13), wherein the chemically inert surface (graphite coating 21) has been arranged onto the electrodes (lines 39-64 of column 2) using coating material graphite.

But Haas fail to disclose that the chemically inert surface being applied to the electrodes using a physical vapor deposition or a chemical vapor deposition.

However, Lemenson discloses formation of coating of a chemically inert diamond coating on an electrode used for arc discharge (gas discharge) by chemical vapor deposition method (see Abstract & lines 3-24 of column 6).

Further Lemenson teaches that such a chemical vapor deposited diamond coating on the electrode provide protection against erosion and or corrosion (see Abstract). Consequently, Lemenson discloses a suitable method of Chemical vapor deposition used for forming a chemically inert coating on the electrodes used for arc discharge (gas discharge).

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use a chemical vapor deposition method used to for coating the electrodes of Haas's device, since it has been held to be within the general skill of a worker in the art to select a known method on the basis of its suitability for the intended use. See MPEP 2144.07.

Regarding claims 19-20, 24, Haas discloses that the coating material is selected from carbon, where carbon is present as a polymorph of carbon (graphite, lines 63-64 of column 2).

Claim 29 recites the same limitations of claim 19. Thus claim 29 is rejected as claim 19 (see rejection of claim 19).

Claim 32 recites the same limitations of claim 20. Thus claim 32 is rejected as claim 20 (see rejection of claim 20).

Regarding claim 27, and 36, Haas discloses that the thickness of the carbon layer is 1.5 micron (lines 11-12 of column 12), instead of claimed thickness of 1 micron.

However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to obtain thickness of 1 micron, since it has been held that discovering an optimum value of a result, effective variable involves only routine skill in the art.

Regarding claims 22, 25, 30, and 33, Lemelson discloses electrodes for a spark plug (Fig 2) having coating of diamond and also discloses coating of metal (lines 10-33 of column 1) in order to further protect electrodes from erosion and corrosive effect during discharge. The same reason for combining art as in claim 1 applies.

Regarding claims 23, and 31 Lemelson discloses that the metal is titanium or chromium (line 31 of column 1). The same reason for combining art as in claim 1 applies.

Regarding claims 34 & 35, Lemelson discloses that the carbon layer is deposited using sputtering in an atmosphere of methane (lines 52-56 of column 6).

Contact Information

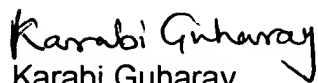
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karabi Guharay whose telephone number is (571) 272-2452. The examiner can normally be reached on Monday-Friday 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (571) 272-2457. The fax phone number for the organization is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published

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applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Karabi Guharay
Patent Examiner
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